

**REMARKS**

This is in response to the Office Action dated October 20, 2005 in connection with the above application. Applicants respectfully request reconsideration in view of the following remarks. Issues raised by the Examiner will be addressed below in the order they appear in the prior Office Action.

Applicants note that the Examiner has withdrawn the rejections under 35 U.S.C. § 112, first paragraph, and the rejections under 35 U.S.C. § 112, second paragraph, in view of Applicants' previous Response and Amendment filed on August 1, 2005.

**Double patenting**

Claims 39, 73, 89, 90, 93, and 95-97 are rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over claims 1-16 and 18-24 of U.S. Patent No. 6,887,674 (the '674 patent).

Specifically, the Examiner asserts that "in each case the methods are drawn to identifying agents that affects EphrinB2 activity (claim 18 for example), and in particular, the interaction of EphrinB2 and EphB4 (claim 1 for example). It is noted that the methods require empirically testing agents where the outcome for any particular agent is not known, and include testing agents with no effect. Accordingly, to practice the claims of '674, one must practice the method of the instant application." See, e.g., Office Action, page 4, lines 15-21.

Applicants respectfully contend that the instant claims are patentably distinct from the claims of the '674 patent. The instant claims are clearly directed to a method for assessing an effect of an agent on arterial smooth muscle cells, rather than a method of identifying agents that affects EphrinB2 activity as asserted by the Examiner. Applicants have also provided arguments below that the '674 patent does not teach or suggest a method involving "arterial smooth muscle cells" as recited in the pending claims. As a result, Applicants disagree with the Examiner's conclusion that "to practice the claims of '674, one **must** practice the method of the instant application" (emphasis added). Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Claim Rejections under 35 U.S.C. § 102(f)

Claims 39, 73, 89, 90, 93, and 95-97 are rejected under 35 U.S.C. § 102(f) because Applicant allegedly did not invent the claimed subject matter. Specifically, the Examiner asserts that “[i]n practicing the methods of either claim set, one would anticipate or make obvious the methods of the other claim set. The present application has in common David J. Anderson and Hai U. Wang, however differs in several other inventors; Zhoufeng Chen in ‘674, and Guillermo Garcia-Cardena in the instant application.” See, e.g., Office Action, page 5, lines 3-8.

Applicants reiterate that the instant claims and teachings are patentably distinct from the claims of the ‘674 patent. The instant claims are clearly directed to a method for assessing an effect of an agent on arterial smooth muscle cells, rather than a method of identifying agents that affects EphrinB2 activity as asserted by the Examiner. Applicants have also provided arguments below that the ‘674 patent does not anticipate or render obvious a method involving “arterial smooth muscle cells” as recited in the pending claims. As a result, Applicants disagree with the Examiner’s conclusion that “[i]n practicing the methods of either claim set, one would anticipate or make obvious the methods of the other claim set.”

Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

Claim Rejections under 35 U.S.C. § 102(e)

Claims 39, 73, 89, 90, 93, and 95-97 are rejected under 35 U.S.C. § 102(e) as allegedly anticipated by U.S. Patent No. 6,887,674 (the ‘674 patent). Applicants respectfully traverse this rejection.

The standard for anticipating a claim is clearly outlined in MPEP 2131, and this standard is further supported by the Courts. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1978).

Applicants contend that the '674 patent does not satisfy this criteria for anticipating the present invention.

As described above, independent claim 39 is directed to a method for assessing an effect of an agent on arterial smooth muscle cells, comprising: a) adding said agent to arterial smooth muscle cells expressing Ephrin B2; and b) comparing the effect of said agent on said arterial smooth muscle cells with a suitable control, wherein comparing the effect comprises: (i) measuring Ephrin B2 gene expression; (ii) detecting Ephrin B2 binding to an EphB4 receptor; or (iii) measuring Ephrin B2 activation or inhibition.

By contrast, the '674 patent merely describes methods for identifying an agent that inhibits interaction between EphrinB2 and EphB4 and methods for identifying an agent having an anti-angiogenic activity. However, the '674 patent does not teach or suggest a method of assessing an effect of an agent on arterial smooth muscle cells as recited in the instant claims. Instead, the '674 patent is directed to either in vitro screening methods or cell-based methods that involve endothelial cells (see, e.g., the abstract; claim 21). The '674 patent is absolutely silent on the limitation of "smooth muscle cells."

Since the '674 patent does not teach or suggest "smooth muscle cells," the '674 patent fails to meet the limitations of independent claim 39 and thus fails to anticipate the claimed subject matter. For the same reasons, Applicants submit that all claims depending from claim 39 are not anticipated by the '674 patent.

In addition, Applicants respectfully submit that the '674 patent does not provide any motivation to modify their methods by using smooth muscle cells. In fact, at the time the '674 patent was filed, arterial smooth muscle cells were not even known to express EphrinB2. Thus, the '674 patent fails to render obvious the claimed invention.

Accordingly, reconsideration and withdrawal of this rejection under 35 U.S.C. § 102(e) are respectfully requested.

### CONCLUSION

For the foregoing reasons, Applicants respectfully request reconsideration and withdrawal of the pending rejections. Applicants believe that the claims are now in condition

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for allowance and early notification to this effect is earnestly solicited. Any questions arising from this submission may be directed to the undersigned at (617) 951-7000.

If there are any other fees due in connection with the filing of this submission, please charge the fees to our **Deposit Account No. 18-1945, under Order No. CTCH-P01-007.**

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Respectfully submitted,

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